

Invitation to Bid

LSUHSC-SHREVEPORT



BIDS WILL BE PUBLICLY OPENED:

February 04, 2010 02:00 PM

VENDOR NO. :
SOLICITATION : **005383**
OPENING DATE : **02/04/2010**

Return Bid in Envelope/Labels Provided to:
Purchasing Department
PO Box 33932
Shreveport LA 71130

BUYER : Morrison, Richard
BUYER PHONE : 318/675-5292
DATE ISSUED : 01/11/2010
REQ. NO : 5964309
FISCAL YEAR : 2010

Mobile C-Arm - DXR

INSTRUCTIONS TO BIDDERS

1. READ THE ENTIRE BID, INCLUDING ALL TERMS AND CONDITIONS AND SPECIFICATIONS.
2. FILL IN ALL BLANK SPACES.
3. ALL BID PRICES MUST BE TYPED OR WRITTEN IN INK. ANY CORRECTIONS, ERASURES OR OTHER FORMS OF ALTERATION TO UNIT PRICES SHOULD BE INITIALIZED BY THE BIDDER.
4. BID PRICES SHALL INCLUDE DELIVERY OF ALL ITEMS F.O.B. DESTINATION OR AS OTHERWISE PROVIDED. BIDS CONTAINING "PAYMENT IN ADVANCE" OR "C.O.D." REQUIREMENTS MAY BE REJECTED. PAYMENT IS TO BE MADE WITHIN 30 DAYS AFTER RECEIPT OF PROPERLY EXECUTED INVOICE OR DELIVERY, WHICHEVER IS LATER.
5. SPECIFY YOUR PAYMENT TERMS: _____ . CASH DISCOUNTS FOR LESS THAN 30 DAYS OR LESS THAN 1% WILL BE ACCEPTED, BUT WILL NOT BE CONSIDERED IN DETERMINING AWARDS

BY SIGNING THIS BID, THE BIDDER CERTIFIES:

- * THAT NEITHER THIS BUSINESS ENTITY NOR ANY OF ITS EMPLOYEES OR SUBCONTRACTORS IS CURRENTLY LISTED AS EXCLUDED OR SANCTIONED BY EITHER THE DEPARTMENT OF HEALTH AND HUMAN SERVICES, OFFICE OF INSPECTOR GENERAL (OIG) OR THE GENERAL SERVICES ADMINISTRATION (GSA).
- * THAT IF THIS BUSINESS ENTITY OR ANY OF ITS EMPLOYEES OR SUBCONTRACTORS APPEAR ON EITHER LISTING, MY BID WILL BE REJECTED.
- * THAT IF AT ANY TIME DURING THE TERM OF THE CONTRACT AWARDED AS A RESULT OF THIS INVITATION TO BID, THIS ENTITY OR ANY OF ITS EMPLOYEES OR SUBCONTRACTORS APPEARS ON EITHER LISTING, MY COMPANY WILL NOTIFY THE CONTRACTING AGENCY, AND THE CONTRACT WILL BE TERMINATED. THE CONTRACTING AGENCY WILL NOT BE LIABLE FOR ANY DAMAGES RESULTING FROM SAID TERMINATION.

THE BIDDER FURTHER CERTIFIES:

- * COMPLIANCE WITH ALL INSTRUCTIONS TO BIDDERS, TERMS, CONDITIONS, AND SPECIFICATIONS.
- * THIS BID IS MADE WITHOUT COLLUSION OR FRAUD.
- * THAT ALL TAXES DULY ASSESSED BY THE STATE OF LOUISIANA AND IT'S SUBDIVISIONS, INCLUDING FRANCHISE TAXES, PRIVILEGE TAXES, SALES TAXES AND ALL OTHER TAXES FOR WHICH THE FIRM IS LIABLE HAVE BEEN PAID.
- * THAT IF MY BID IS ACCEPTED WITHIN _____ DAYS FROM BID CLOSING TIME, MY FIRM WILL FURNISH ANY OR ALL OF THE ITEMS (OR SECTIONS) AT THE PRICE OPPOSITE EACH ITEM (OR SECTION).
- * DELIVERY WILL BE MADE WITHIN _____ DAYS AFTER RECEIPT OF ORDER.

VENDOR PHONE NUMBER:

TITLE

DATE

FAX NUMBER:

SIGNATURE OF AUTHORIZED BIDDER
(MUST BE SIGNED)

NAME OF BIDDER
(TYPED OR PRINTED)

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<ol style="list-style-type: none"> 6. DESIRED DELIVERY: 10 DAYS ARO, UNLESS SPECIFIED ELSEWHERE 7. TO ASSURE CONSIDERATION, ALL BIDS SHOULD BE SUBMITTED IN THE SPECIAL ENVELOPE, OR USE BID LABEL IF FURNISHED FOR THAT PURPOSE. IN THE EVENT YOUR BID CONTAINS BULKY SUBJECT MATERIAL, THE SPECIAL BID ENVELOPE SHOULD BE FIRMLY AFFIXED TO THE MAILING ENVELOPE. 8. BIDS SUBMITTED ARE SUBJECT TO PROVISIONS OF THE LAWS OF THE STATE OF LOUISIANA INCLUDING BUT NOT LIMITED TO L.R.S. 39:1551-1736; PURCHASING RULES AND REGULATIONS; EXECUTIVE ORDERS; STANDARD TERMS AND CONDITIONS; SPECIAL CONDITIONS; AND SPECIFICATIONS LISTED IN THIS SOLICITATION. 9. IMPORTANT: THIS BID IS TO BE MANUALLY SIGNED IN INK BY A PERSON AUTHORIZED TO BIND THE VENDOR (SEE NO.31). 10. INQUIRIES: ADDRESS ALL INQUIRIES AND CORRESPONDENCE TO THE BUYER AT THE PHONE NUMBER AND ADDRESS SHOWN ABOVE. 11. BID FORMS: ALL WRITTEN BIDS, UNLESS OTHERWISE PROVIDED FOR, SHOULD BE SUBMITTED ON, AND IN ACCORDANCE WITH FORMS PROVIDED, PROPERLY SIGNED (SEE #31). BIDS MUST BE RECEIVED AT THE ADDRESS SPECIFIED IN THE SOLICITATION PRIOR TO BID OPENING TIME IN ORDER TO BE CONSIDERED. 12. STANDARDS OR QUALITY. ANY PRODUCT OR SERVICE BID SHALL CONFORM TO ALL APPLICABLE FEDERAL AND STATE LAWS AND REGULATIONS AND THE SPECIFICATIONS CONTAINED IN THE SOLICITATION. UNLESS OTHERWISE SPECIFIED IN THE SOLICITATION, ANY MANUFACTURER'S NAME, TRADE NAME, BRAND NAME, OR CATALOG NUMBER USED IN THE SPECIFICATION IS FOR THE PURPOSE OF DESCRIBING THE STANDARD OF QUALITY, PERFORMANCE, AND CHARACTERISTICS DESIRED AND IS NOT INTENDED TO LIMIT OR RESTRICT COMPETITION. BIDDER MUST SPECIFY THE BRAND AND MODEL NUMBER OF THE PRODUCT OFFERED IN HIS/HER BID. BIDS NOT SPECIFYING BRAND AND MODEL NUMBER SHALL BE CONSIDERED AS OFFERING THE EXACT PRODUCTS SPECIFIED IN THE SOLICITATION. 13. DESCRIPTIVE INFORMATION. BIDDERS PROPOSING AN EQUIVALENT BRAND OR MODEL SHOULD SUBMIT WITH THE BID, INFORMATION (SUCH AS ILLUSTRATIONS, DESCRIPTIVE LITERATURE, TECHNICAL DATA) SUFFICIENT FOR LSUHSC TO EVALUATE QUALITY, SUITABILITY, AND COMPLIANCE WITH THE SPECIFICATIONS IN THE SOLICITATION. FAILURE TO SUBMIT DESCRIPTIVE INFORMATION MAY CAUSE BID TO BE REJECTED. ANY CHANGE MADE TO A MANUFACTURER'S PUBLISHED SPECIFICATION SUBMITTED FOR A PRODUCT SHALL BE VERIFIABLE BY THE MANUFACTURER. IF ITEM(S) BID DO NOT FULLY COMPLY WITH SPECIFICATIONS (INCLUDING BRAND AND/OR PRODUCT NUMBER), BIDDER MUST STATE IN WHAT RESPECT ITEMS(S) DEVIATE. FAILURE TO NOTE EXCEPTIONS ON THE BID FORM WILL NOT RELIEVE THE SUCCESSFUL BIDDER(S) FROM SUPPLYING THE ACTUAL PRODUCTS REQUESTED. 14. BID OPENING. BIDDERS MAY ATTEND THE BID OPENING, BUT NO INFORMATION OR OPINIONS CONCERNING THE ULTIMATE CONTRACT AWARD WILL BE GIVEN AT THE BID OPENING OR DURING THE EVALUATION PROCESS. BIDS MAY BE EXAMINED WITHIN 72 HOURS AFTER BID OPENING. INFORMATION PERTAINING TO COMPLETED FILES MAY BE SECURED BY VISITING LSUHSC DURING NORMAL WORKING HOURS. WRITTEN BID TABULATIONS WILL NOT BE FURNISHED. 15. AWARDS. AWARD WILL BE MADE TO THE LOWEST RESPONSIBLE AND RESPONSIVE BIDDER. LSUHSC RESERVES THE RIGHT TO AWARD ITEMS SEPARATELY, GROUP, OR IN TOTAL, AND TO REJECT ANY OR ALL BIDS AND WAIVE ANY INFORMALITIES. 16. PRICES. UNLESS OTHERWISE SPECIFIED BY LSUHSC IN THE SOLICITATION, BID PRICES MUST BE COMPLETE, INCLUDING TRANSPORTATION PREPAID BY BIDDER TO DESTINATION AND FIRM FOR ACCEPTANCE FOR A MINIMUM OF 30 DAYS. IF ACCEPTED, PRICES MUST BE FIRM FOR THE CONTRACTUAL PERIOD. BIDS OTHER THAN F.O.B. DESTINATION MAY BE REJECTED. PRICES SHOULD BE QUOTED IN THE UNIT (EACH, 	

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<p>BOX, CASE, ETC.) AS SPECIFIED IN THE SOLICITATION.</p> <p>17. DELIVERIES. BIDS MAY BE REJECTED IF THE DELIVERY TIME INDICATED IS LONGER THAN THAT SPECIFIED IN THE SOLICITATION.</p> <p>18. TAXES. VENDOR IS RESPONSIBLE FOR INCLUDING ALL APPLICABLE TAXES IN THE BID PRICE. LSUHSC AGENCIES ARE EXEMPT FROM ALL STATE AND LOCAL SALES AND USE TAXES.</p> <p>19. NEW PRODUCTS. UNLESS SPECIFICALLY CALLED FOR IN THE SOLICITATION, ALL PRODUCTS FOR PURCHASE MUST BE NEW, NEVER PREVIOUSLY USED, AND THE CURRENT MODEL AND/OR PACKAGING. NO REMANUFACTURED, DEMONSTRATOR, USED OR IRREGULAR PRODUCT WILL BE CONSIDERED FOR PURCHASE UNLESS OTHERWISE SPECIFIED IN THE SOLICITATION. THE MANUFACTURER'S STANDARD WARRANTY WILL APPLY UNLESS OTHERWISE SPECIFIED IN THE SOLICITATION.</p> <p>20. CONTRACT CANCELLATION. THE STATE OF LOUISIANA HAS THE RIGHT TO CANCEL ANY CONTRACT, IN ACCORDANCE WITH PURCHASING RULES AND REGULATIONS, FOR CAUSE INCLUDING BUT NOT LIMITED TO THE FOLLOWING: (1) FAILURE TO DELIVER WITHIN THE TIME SPECIFIED IN THE CONTRACT; (2) FAILURE OF THE PRODUCT OR SERVICE TO MEET SPECIFICATIONS, CONFORM TO SAMPLE QUALITY OR TO BE DELIVERED IN GOOD CONDITION; (3) MISREPRESENTATION BY THE CONTRACTOR; (4) FRAUD, COLLUSION CONSPIRACY OR OTHER UNLAWFUL MEANS OF OBTAINING ANY CONTRACT WITH THE STATE; (5) CONFLICT OF CONTRACT PROVISIONS WITH CONSTITUTIONAL OR STATUTORY PROVISIONS OF STATE OR FEDERAL LAW; (6) ANY OTHER BREACH OF CONTRACT.</p> <p>21. DEFAULT OF CONTRACT. FAILURE TO DELIVER WITHIN THE TIME SPECIFIED IN THE BID WILL CONSTITUTE A DEFAULT AND MAY CAUSE CANCELLATION OF THE CONTRACT. WHERE THE UNIVERSITY HAS DETERMINED THE CONTRACTOR TO BE IN DEFAULT, THE UNIVERSITY RESERVES THE RIGHT TO PURCHASE AN OR ALL PRODUCTS OR SERVICES COVERED BY THE CONTRACT ON THE OPEN MARKET AND TO CHARGE THE CONTRACTOR WITH COST IN EXCESS OF THE CONTRACT PRICE. UNTIL SUCH ASSESSED CHARGES HAVE BEEN PAID, NO SUBSEQUENT BID FROM THE DEFAULTING CONTRACTOR WILL BE CONSIDERED.</p> <p>22. ORDER OF PRIORITY. IN THE EVENT THERE IS A CONFLICT BETWEEN THE INSTRUCTIONS TO BIDDERS OR STANDARD CONDITIONS AND THE SPECIAL CONDITIONS, THE SPECIAL CONDITIONS SHALL GOVERN.</p> <p>23. APPLICABLE LAW. ALL CONTRACTS SHALL BE CONSTRUED IN ACCORDANCE WITH AND GOVERNED BY THE LAWS OF THE STATE OF LOUISIANA.</p> <p>24. EQUAL OPPORTUNITY. BY SUBMITTING AND SIGNING THIS BID, BIDDER AGREES THAT HE/SHE WILL NOT DISCRIMINATE IN THE RENDERING OF SERVICES TO AND/OR EMPLOYMENT OF INDIVIDUALS BECAUSE OF RACE, COLOR, RELIGION, SEX, AGE, NATIONAL ORIGIN, HANDICAP, DISABILITY, VETERAN STATUS, OR A OTHER NON-MERIT FACTOR.</p> <p>25. SPECIAL ACCOMMODATIONS. ANY "QUALIFIED INDIVIDUAL WITH DISABILITY" AS DEFINED BY THE AMERICANS WITH DISABILITIES ACT WHO HAS SUBMITTED A BID AND DESIRES TO ATTEND THE BID OPENING, MUST NOTIFY THIS OFFICE IN WRITING NOT LATER THAN SEVEN DAYS PRIOR TO THE BID OPENING DATE OF THEIR NEED FOR SPECIAL ACCOMMODATIONS. IF THE REQUEST CANNOT BE REASONABLY PROVIDED, THE INDIVIDUAL WILL BE INFORMED PRIOR TO THE BID OPENING.</p> <p>26. IDEMNITY. CONTRACTOR AGREES, UPON RECEIPT OF WRITTEN NOTICE OF A CLAIM OR ACTION, TO DEFEND THE CLAIM OR ACTION, OR TAKE OTHER APPROPRIATE MEASURE, TO IDEMNIFY, AND HOLD HARMLESS, LSUHSC, ITS OFFICERS, ITS AGENTS AND ITS EMPLOYEES FROM AND AGAINST ALL CLAIMS AND ACTIONS FOR BODILY INJURY, DEATH OR PROPERTY DAMAGES CAUSED BY THE FAULT OF THE CONTRACTOR,</p>	

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OFFICERS, ITS AGENTS, OR ITS EMPLOYEES. CONTRACTOR IS OBLIGATED TO INDEMNIFY ONLY TO THE EXTENT OF THE FAULT OF THE CONTRACTOR, ITS OFFICERS, ITS AGENTS, OR ITS EMPLOYEES. HOWEVER, THE CONTRACTOR SHALL HAVE NO OBLIGATION AS SET FORTH ABOVE WITH RESPECT TO ANY CLAIM OR ACTION FROM BODILY INJURY, DEATH OR PROPERTY DAMAGES ARISING OUT OF THE FAULT OF THE UNIVERSITY, ITS OFFICERS, ITS AGENTS OR ITS EMPLOYEES.

27. INTERPRETATION OF DOCUMENT: ANY INTERPRETATION OF THE BID OR QUOTATION DOCUMENT WILL ONLY BE MADE BY AN ADDENDUM ISSUED IN WRITING BY THE PURCHASING DEPARTMENT. SUCH ADDENDUM WILL BE MAILED OR DELIVERED TO EACH PERSON RECEIVING A SET OF THE ORIGINAL BID OR QUOTATION DOCUMENTS. LSUHSC WILL NOT BE RESPONSIBLE FOR ANY OTHER EXPLANATION OR INTERPRETATION OF THE DOCUMENTS.

28. ACCEPTANCE OF BID: ONLY THE ISSUANCE OF A PURCHASE ORDER OR A SIGNED CONTRACT CONSTITUTES ACCEPTANCE ON THE PART OF LSUHSC.

29. ADHERENCE TO JCAHO STANDARDS: WHERE APPLICABLE, LSUHSC IS ACCREDITED BY THE JOINT COMMISSION ON ACCREDITATION OF HEALTHCARE ORGANIZATIONS AND AS SUCH ALL CONTRACTORS, SUBCONTRACTORS, AND VENDORS AGREE TO ADHERE TO THE APPLICABLE STANDARDS PROMULGATED BY THE COMMISSION.

30. PREFERENCE: IN ACCORDANCE WITH LOUISIANA REVISED STATUTES 39:1595, A PREFERENCE MAY BE ALLOWED FOR PRODUCTS MANUFACTURED, PRODUCED, GROWN, OR ASSEMBLED IN LOUISIANA OF EQUAL QUALITY. DO YOU CLAIM THIS PREFERENCE? YES _____ NO _____
 SPECIFY THE LINE NUMBER (S) _____
 SPECIFY LOCATION WITHIN LOUISIANA WHERE THIS PRODUCT IS MANUFACTURED, PRODUCED, GROWN OR ASSEMBLED _____
 (NOTE: IF MORE SPACE IS REQUIRED, INCLUDE ON SEPARATE SHEET.)
 DO YOU HAVE A LOUISIANA BUSINESS WORK FORCE? YES _____ NO _____
 IF SO, DO YOU CERTIFY THAT AT LEAST FIFTY PERCENT (50%) OF YOUR LOUISIANA WORKFORCE IS COMPRISED OF LOUISIANA RESIDENTS?
 YES _____ NO _____
 FAILURE TO SPECIFY ABOVE INFORMATION MAY CAUSE ELIMINATION FROM PREFERENCES.
 PREFERENCES SHALL NOT APPLY TO SERVICE CONTRACTS.

31. SIGNATURE AUTHORITY. IN ACCORDANCE WITH L.R.S. 39:1594 (ACT 121), THE PERSON SIGNING THE BID MUST BE:

31.1. A CURRENT CORPORATE OFFICER, PARTNERSHIP MEMBER OR OTHER INDIVIDUAL SPECIFICALLY AUTHORIZED TO SUBMIT A BID AS REFLECTED IN THE APPROPRIATE RECORDS ON FILE WITH THE SECRETARY OF STATE; OR

31.2. AN INDIVIDUAL AUTHORIZED TO BIND THE VENDOR AS REFLECTED BY AN ACCOMPANYING CORPORATE RESOLUTION, CERTIFICATE OR AFFIDAVIT; OR

31.3. AN INDIVIDUAL LISTED ON THE STATE OF LOUISIANA BIDDER'S APPLICATION AS AUTHORIZED TO EXECUTE BIDS. BY SIGNING THE BID, THE BIDDER CERTIFIES COMPLIANCE WITH THE ABOVE.

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<p>32. Bid shall opened and the prices read aloud at 2:00 PM on 02/04/2010.</p> <p>All bids become a matter of public record at the opening. By submitting a bid, bidder specifically assumes any and all risks and liability associated with information marked confidential in the bid and the release of the information.</p> <p>33. LSUHSC-S POC is Denise Brown, RT, Diagnostic Radiology Department @ (318) 675-6215 and Gerald Messina, Director of Biomedical Engineering Department @ (318) 675-6332.</p>	

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PRICE SHEET		Page 6 of 6			
NUMBER : 005383		BIDDER:			
OPEN DATE : 02/04/2010 TIME: 02:00 PM					
UNLESS SPECIFIED ELSEWHERE SHIP TO: 1541 Kings Highway Shreveport LA 71130					
Line No.	Description			Unit Price	Extended Amount
1	New GE OEC 9600 C-Arm, or equivalent, to include DICOM connectivity. See Attachment A for specifications. Specify brand, model bid(if applicable) _____	1.00	EA		
2	Refurbished GE OEC 9600 C-Arm, or equivalent, to include DICOM connectivity. See Attachment A for specifications. Specify brand, model bid(if applicable) _____	1.00	EA		

Louisiana State University Health Sciences Center-Shreveport
Equipment Specifications for Digital Mobile C-Arm Imaging System in the
Emergency Department
December 2009

DIGITAL MOBILE C-ARM IMAGING SYSTEM SPECIFICATIONS

NOTICE OF INTENT

Louisiana State University Health Sciences Center-Shreveport, hereafter referred to as (LSUHSC-S) intends to acquire a digital mobile C-Arm imaging system.

SCOPE

This equipment is to be installed in the Emergency Department. This document describes performance specifications for provision of a digital mobile C-Arm imaging system. The vendor is requested to provide pricing based on a refurbished unit designed for imaging of simple extremities during surgery or other orthopedic procedures. The vendor may also provide pricing for a new unit for consideration. This system shall be interfaced to the hospital's information systems (PACS, RIS, HIS) as is applicable. All licenses associated with sending to PACS must be obtained by the vendor for interface purposes. LSUHSC will not incur any additional cost associated with interfacing and providing data transfer to our systems. The information systems currently in use at LSUHSC Shreveport are:

- ☐ PACS – GE Centricity 3.0
- ☐ RIS – SMS version 27

Technical Specifications for the Digital Mobile C-Arm Imaging Equipment

SYSTEM MECHANICS MUST PROVIDE THE FOLLOWING:

1. A minimum of 26" free space in between the X-ray tube and the image receptor to provide a large imaging space.
2. Depth must be a minimum of 24" deep to provide a large imaging space and C-Arm clearance around the patient and the imaging table.
3. Provide a minimum of 115° c-arm orbital rotation, 90° under-scan and 25° over-scan capabilities.
4. Mechanics must allow the user to reverse the X-ray tube and the image intensifier positions and also provide C-Arm under-scan and over-scan capabilities.
5. Be able to rotate $\pm 180^\circ$ to allow the imaging chain to accomplish angled projections.
6. Have a minimum of at least 17" of vertical C-Arm travel capability to adjust the imaging chain height.
7. Provide side-to-side (wig-wag) and the horizontal travel movements to allow panning during imaging.
8. Be equipped with cable pushers on the C-Arm wheels so that cables laying on the operating room floor will not limit the C-Arm movements.
9. The system must have the capability of motorized C-Arm movements (LAO/RAO directions and cranial/caudal directions with a minimum of 8 degrees per second motorized movements.
10. The image processing matrix must be 1,000 x 1,000 x 16 bit or better.
11. The system must be capable of providing digital cine modes with a minimum of 15 and a maximum of 30 pulses per second.

TUBE/GENERATOR

1. Type
 - a. Generator must be a 40 KHz high frequency inverter type
 - b. Stationary or rotating anode x-ray tube type
2. Output
 - a. Tube Current Range – minimum of 40 kVp and maximum of 120 kVp
 - b. Must allow for normal and low dose settings
 - c. Must allow for manual technique control
 - d. Power rating of the generator should be 2.25kw or greater
 - e. Must be capable of pulsing a minimum of 8 pulses per second in fluoroscopy mode to reduce radiation exposure.
3. Fluoroscopic kVp range - minimum of 40 kVp and maximum of 110 kVp
Fluoroscopic mA range – minimum of 1mA and maximum of 8mA
Radiographic kVp range – minimum of 50 kVp and maximum of 110 kVp
Radiographic mA range – minimum of 20mA
Radiographic mAs range must be .4 to 100 mAs in radiographic mode
4. Focal spot – minimum of 0.5mm and 1.5mm dual focal spots
5. Collimator
 - a. Iris collimator/shutters to limit imaging field of view and improve image quality
6. Anode heat storage capacity must be a minimum of 50 kHU.
7. Anode cooling capacity must be a minimum of 60,000 H.U.

8. Tube housing heat storage capacity must be a minimum of 50 kHU.
9. Anatomical program capability
 - a. Must be capable of preset anatomical programs such as
 - i. kVp
 - ii. mA
 - iii. mAs
 - iv. focal spot
 - v. density
 - vi. ion chamber
 - vii. patient size
 - b. Programs are to be transferable between like systems by using removable image storage media.
10. Dose recording capability – system must be able to record patient dose and save to the system memory
11. Calibration – automated with user notification of any failure
12. Diagnostic capability
 - a. Generator must include self diagnostic capabilities that will provide visual/audible alerts to the operator and display an error message that can be used for troubleshooting.
 - b. Generator must have capability of system software repair or upgrade via a removable media such as CD or diskette in order to minimize downtime due to necessary software changes/patches.
13. User Interface
 - c. Color LCD
 - d. Transferable protocol programs via removable media
14. Laser localizer

DIGITAL IMAGE PROCESSING

1. Last image hold
2. 200 image storage on hard disk
3. 640 x 512 x 10 bit
4. Noise reduction (low, high)
5. One shot frame integration
6. 16 image collage
7. Patient Annotation
8. Window/level
9. Patient/image directories
10. Sharpen (edge enhancement)
11. Zoom
12. Negate (negative mode)
13. Real-time auto histogram
14. On-line help menus
15. Procedure dose log (mA, kVp, time, patient)

IMAGE INTENSIFIER

1. Must have a minimum 9" tri-mode image intensifier with a minimum line resolution of 2 lp/mm.
2. Must have high resolution.
3. Must be equipped with a carbon fiber grid with a minimum 10:1 ratio and a minimum of 150 lines/inch.

TV MONITOR

1. The system must be equipped with a high resolution monitor.
2. The camera gain and iris must be computer controlled.
3. The system must be equipped with a tracking system to optimize film quality by seeking the subject anatomy and optimizing the technique.
4. The system must have two anti-glare and progressive scan monitors and have the capability to add a third color monitor on the articulating arm.
5. 360° motorized rotation
6. On-screen orientation indicator (real-time feedback without fluoro)
7. Horizontal and vertical image reversal
8. Negative mode
9. Video signal: standard RS-170 60 Hz. 525 line
10. Aspect ratio: 4,3

IMAGE STORAGE

1. Last image hold
2. 200 images on a hard disk
3. 3 images on a floppy disk
4. Video resolution 640 x 512 x 10 bit

Additional Requirements for a refurbished system – The vendor must provide comprehensive description of the refurbishing process including the list of new parts and calibration reports. The unit must conform to its original OEM specifications. In addition, the components listed below must be new and conform to the specifications provided.

VIDEO IMAGING SYSTEM

1. 9" image intensifier (new)

X-RAY TUBE

1. Anode (new)
2. 0.3 mm – 1.0 mm focal spot
3. Focal spot kW rating: 0.3 – 5.3 kW, 1.0 – 41.0 kW
4. Anode heat capacity: 300,000 HU
5. Anode cooling rate: 70,000 HU per minute
6. Housing heat capacity: 1,250,000 HU
7. Anode diameter: 3"
8. Anode angle: 12"

DICOM BOXES (2) – (If needed by vendor for PACS connectivity)

1. DICOM box – CA analog video to DICOM B & W to 20 MHz 580 x 768, 8 bit, DICOM print
2. Option-G bundle upgrade CA/DVI print, store, worklist, RGB, Highline, host ctrl
3. SA cable video in AAM input for OEC 9800
4. SA cable video out output to OEC 9800
5. Installation

SYSTEM FUNCTIONS MUST PROVIDE THE FOLLOWING:

1. The user interface must provide a method that is easily accessible to input any patient information into the system computer so that each image is properly marked.
2. Allow the user to enter patient information in order to create a work list.
3. A backlit X-ray control panel that allow technologists to operate the system in dimmed operating room.
4. A means to monitor accumulated exposure time during a procedure and an alarm or warning shall be provided to warn the user for long exposure time.
5. A means to reduce quantum noise to improve image quality.
6. Provide real-time and post processing edge enhancement capabilities to improve bones and vascular details.
7. A means to record and display radiation exposure dose information for a procedure.
8. Allow the user to automatically adjust image quality when metal is introduced into the image.
9. A simple method to retrieve stored images (static and dynamic), display a collage of stored images, and allow the user to review stored images at a later time.
10. An automatic playback capability that images are played back immediately after the completion of a dynamic imaging run.
11. Allow the user to review a dynamic imaging run in frame-by-frame and set queues in the run.
12. An integrated high quality hardcopy features thermal printer, or interface to a dry laser camera.

Acquisition Workstation (workstation must provide at a minimum the functionality listed below)

Acquisition Workstation for quality assurance review and network interface

1. Monitor
 - a. High Resolution with a minimum of 1000 scan lines
 - b. No less than two 16" anti-glare monitors
 - c. Progressive scan
2. Hard Disk Storage >200 Image storage
 - a. Expanded archiving = minimum of 200 images saved in memory
 - b. Minimum of 2000 additional images saved to removable media
 - c. Dynamic image storage > 4000 images
3. Image Processing
 - a. Frame rate = minimum of 15 frames per second
 - b. Last-image hold capability

- c. Image field size (magnification)
- 4. Image Display Functions
 - a. Window Level
 - b. Gray scale invert
 - c. Interpolated zoom with roam
 - d. Image flips (horizontal, vertical) with automatic indicator.
 - e. Image Rotate
- 5. Post-Acquisition Image Processing Functions
 - a. Image Annotation with configurable display on/off:
 - b. Hospital/Institution Name
 - c. Date, Time (hh:mm:ss) of Acquisition
 - d. Laterality
 - e. Scale
 - f. Measurements
 - g. Contrast, Brightness Values (window, level)
 - h. Processing Look
 - i. Anatomical View
 - j. Exposure Technique including kVp, mA, mAs, and time
 - k. Estimated Exposure Dose (ESE, estimated skin exposure) read out in uGy units
 - l. Operator Entered Annotations
 - m. Patient ID
 - n. Patient Name
 - o. Patient Age and DOB (date of birth)
- 6. Built in user help functions

Networking and Communication - DICOM/HL7/IHE Requirements

1. The modality must be DICOM (Digital Imaging in Communications and Medicine) compliant, provide Level 2 conformance, and be able to function with other DICOM compliant modalities and systems within LSUHSC-S. The intent is to provide maximum automation for the institution utilizing DICOM standards. This includes specifically the institutions GE PACS (Picture Archiving and Communications System), and any other DICOM equipment specified in the bid. Functionality at a minimum includes DICOM Storage Service Class User (SCU) and DICOM Verification Service Class User and Provider (SCU and SCP) capability. These classes should be those appropriate for the modality, and if requirements specify connection to an older system, should include any potential 'retired' SOP (Service Object Pairs) the older modality may require. If the modality does not yet have the capabilities below, they must be installed at no additional charge within one year from purchase. These items must be clearly stated in the bid specifications, along with projected time frames for implementation.
2. The modality must be able to perform DICOM Modality Work List functions so that patient orders can be selected from a worklist provided by PACS/RIS (Radiology Information System), rather than requiring manual entry by the technologist. Since the GE PACS does not currently provide this functionality, worklist must be provided via the Merge broker. License fees to access the worklist from the modality must be included.
3. The modality must be able to perform DICOM Performed Procedure Step functions, so that exam progress status can be automatically sent back to PACS/RIS, and DICOM Storage Commitment.

4. The modality must be able to perform DICOM Query/Retrieve functions as a Service Class User for all appropriate image sets to allow for retrieval of prior studies for comparison at the modality.
5. The modality must be able to perform DICOM Print as a Service Class User for all appropriate image sets, and must work with LSUHSC-S DICOM Print servers.
6. LSUHSC-S currently has GE's PACS system (Centricity 2.1), and Siemens/SMS RIS system (v23). It is the vendor's responsibility to ensure that images can be stored and retrieved from PACS, and that all requested DICOM/HL7/IHE functions work with the appropriate LSUHSC-S systems. This includes any additional licenses, fees and service required by these vendors to connect the modality and provide the functionality described. Payment will be made pending LSUHSC-S verification of these functions. LSUHSC-S's unidirectional PACS broker currently prohibits DICOM PPS from occurring, but once the ability to do bi-directional communication with the RIS is in place, this modality connection must be implemented by the vendor. It is the intention of this bid to ensure a complete installation, and that there will not be any 'gaps' left to LSUHSC-S to pay for outside of the bid to make the systems work as intended.
7. The vendor must be a participant in the IHE (Integrating the Healthcare Enterprise) initiative. A current Vendor Integration Statement must be provided in the bid. It is LSUHSC-S intent to utilize IHE principles to support the integration of systems in the healthcare enterprise. The vendor must be working in the same direction in order to be considered for this bid. There are currently a number of Integration Profile specifications, with varied degree of support from Vendors. Ultimately, all Integration Profiles should be a standard part of a Vendors offer. The specific profiles required fall into two categories, one for acquisition modalities and one for diagnostic image softcopy display stations that may be supplied with the modality. If the Vendor does not currently support all the profiles, they must be made available upon Vendor support (within one year from purchase) at no extra charge to LSUHSC-S. The vendor must provide User Authentication/Access Control at the device, as well as node authentication and exportable audit logs in the IHE ATNA format. There must be an ability to synchronize the clock on the device with a central clock specified by LSUHSC-S.

a. Acquisition Modalities

- 1) Scheduled Workflow (SWF)
- 2) Patient Information Reconciliation (PIR)
- 3) Consistent Presentation of Images (CPI)
- 4) Presentation of Grouped Procedures (PGP)
- 5) Evidence Documents (ED)
- 6) Key Image Note (KIN)
- 7) Basic Security (SEC)
- 8) Audit Trail and Node Authentication (ATNA)

b. Diagnostic Image Softcopy Display Workstations

- 1) Consistent Presentation of Images (CPI)
- 2) Presentation of Grouped Procedures (PGP)
- 3) Post-Processing Workflow (PWF)
- 4) Evidence Documents (ED)
- 5) Simple Image and Numeric Report (SINR)
- 6) Basic Security (SEC)
- 7) Audit Trail and Node Authentication (ATNA)

Operating System and Software Patches

The vendor must provide critical and install FDA approved (security or operational) patches on a timely basis. If the system is affected by an attack on an unpatched (one that has a patch available for it but has not been installed) security hole, it is the vendors responsibility to bring the system back to a functional state within the emergency response time specified under service.

Network requirements

Network connections should be located within 10 feet of the console. The bid system should support 10/100mbps (10/100BaseT) network speeds. 100mbps network speed is preferred. The network shall be segmented from the rest of the hospital network, and utilize category 5e cables for all installations. Network jacks must be 8 pin modular (RJ45). The bid system should be connected to the network via patch cord connection to the facility infrastructure. The medical center will provide IP address, default router IP address, and subnet mask for each system installed.

System Reliability/Diagnostics

1. System must provide log capture record of error signals.
2. System must support remote access by vendor

APPLICATIONS SUPPORT

1. Applications training for all components of the bid shall be included as part of the bid.
2. Vendor to specify exact training provided, and as minimum must meet the criteria as follows:
 - a. Must be provided on-site by a qualified and licensed X-ray technologist, with specific training on the specific version of the equipment installed.
 - b. Must be provided for a period of at least four (4) days at turnover of equipment with.
 - c. Two (2) day follow-up visit occurring approximately six (6) weeks later.
3. Applications support shall be available through a 1-800 phone (toll free to user) support system at least five (5) days a week.
4. Training program shall be approved for acceptance by the ASRT as a Continuing Education program so that Technologists attend the full course of training shall receive the approved continuing education points.
5. Actual dates and hours of training shall be agreed upon by LSUHSC-S Diagnostic Imaging department. (The intent of this statement is to give the owner/user department input to the dates and time of training in order to coordinate training with on-going staffing issues and patient care demands provided by the Diagnostic Imaging Section at LSUHSC.

SERVICE SUPPORT

1. Service shall be readily available to LSUHSC-S. Bidder guarantees that service response shall occur in less than one (1) hour by phone and less than four (4) hours on-site.
2. Local service engineer shall be factory trained and certified on the specific unit bid. Proof of such certification shall be made available upon request by LSUHSC-S within 48 hours of notification.

INSTALLATION

1. Equipment must be installed according to the manufacturer's recommendations and must meet all state and local building codes governing the installation of Radiology equipment.
2. Installation, field assembly, interconnection, equipment calibration check-out and HEW certifications shall be by factory trained personnel.
3. Two (2) sets of Owner's and Operator's manuals (in English) shall be provided and one (1) set of installation manuals/plans (in English).
4. All service documentation will be provided to include service manuals, troubleshooting guides, schematics, and system block diagrams on all equipment under the bid. This includes equipment not manufactured by the successful bidder.

SYSTEM WARRANTY

Entire system shall be warranted for a period of one year. Warranty service shall be provided during normal working hours, 8:00 A.M. to 5:00 P.M., Monday through Friday. Entire system means the system in its entirety. All labor, all parts and components, glassware, tubes, monitors, intensifiers are to be included. This requirement pertains to all components included in this bid. During the warranty period, vendor shall provide LSUHSC-S with all software upgrades that do not require hardware changes at no charge. This requirement pertains to the imaging system and all components included in this bid.

Two (2) Preventative Maintenance Inspections (PMI) are to be included at no charge to LSUHSC-S. Each PMI is to include all equipment. Preventative Maintenance Inspections are to be scheduled with LSUHSC-S during the normal working hours of the vendor to prevent additional after hour charges. The first PMI shall be conducted approximately six (6) months after room acceptance. The second PMI shall be conducted approximately eleven (11) months after room acceptance. The second PMI must be conducted at a time prior to the warranty expiration date and at a time so as to allow for replacement of parts, if necessary, within the warranty period to prevent undue charges to LSUHSC-S.

OTHER

Vendor shall include in the reply to bid, the "cut sheets", company brochures, and other printed material detailing the features, functions, and specifications of the equipment that has been bid.

-----END OF EQUIPMENT SPECIFICATIONS-----